

**IN THE CLAIMS:****. WHAT IS CLAIMED IS:**

1. (Currently Amended) A tympanic thermometer comprising:

5 a heat sensing probe defining a longitudinal axis and an outer surface extending from a distal end of the tympanic thermometer;

an ejection apparatus further comprising a button, a spring and including  
at least one finger extending from the distal end of the tympanic thermometer and the  
10 finger being configured for movement along the outer surface of the probe tip toward a distal end of the probe; and

a probe cover being mountable to the distal end of the tympanic thermometer, the mounted probe cover defining an inner surface configured to engage the outer surface of the probe tip and the mounted cover conceals the at least one eject finger and the outer surface of the probe tip, the probe cover including at least one proximal face projecting at the inner surface of the probe cover,

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wherein the at least one finger is movable, to eject the probe cover, toward the distal end of the probe tip, the at least one finger moving along the outer surface of the probe tip and along the inner surface of the probe cover, and further the at least one finger is in contact with the at least one proximal face at the inner surface of the probe cover, until the probe cover is released from the probe.

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2. (Original) A tympanic thermometer as recited in claim 1, wherein the outer surface of the probe defines a groove, transversely oriented relative to the longitudinal axis, which is configured to receive a portion of the probe cover for releasably retaining the probe cover with the probe.

25 3. (Original) A tympanic thermometer as recited in claim 2, wherein the portion of the probe cover includes a plurality of protuberances projecting from the inner surface of the probe cover and being proximally spaced from the distal end of the probe cover.

4. (Original) A tympanic thermometer as recited in claim 1, wherein the ejection apparatus includes a plurality of fingers.

5. (Original) A tympanic thermometer as recited in claim 1, wherein the at least one finger includes a tapered finger tip defining a distal strike face.

6. (Original) A tympanic thermometer as recited in claim 1, wherein the at least one finger is movable between a retracted position and an extended position.

7. (Original) A tympanic thermometer as recited in claim 6, whereby the at least one finger is biased to the extended position.

8. (Original) A tympanic thermometer as recited in claim 1, whereby the at least one finger is releasably fixable in a retracted position.

9. (Original) A tympanic thermometer as recited in claim 8, wherein the at least one finger is releasably fixable via a latch, whereby the latch includes a release button that is engageable to release the at least one finger from the retracted position.

10. (Previously Presented) A probe cover as recited in claim 1, wherein the probe cover includes a plurality of ribs, the ribs provide the proximal face.

11. (Previously Presented) A tympanic thermometer as recited in claim 10, wherein the at least one rib has a transverse face having a substantially parallel orientation relative to the axis of the probe.

12. (Previously Presented) A tympanic thermometer as recited in claim 1, wherein the ejection apparatus includes a plurality of equidistantly spaced fingers, each having a tapered finger tip that defines a distal strike face and the probe cover including a plurality of equidistantly spaced ribs, each having the proximal strike face, wherein the distal strike faces and proximal strike faces engage for moving the fingers between a retracted position and an extended position.

13. – 20 (Canceled )

**Response to non-Final Office Action****Overview**

5 Applicant is referring to Lantz, U.S. Patent Publication Number 2006/0120432 A1  
by paragraph number when responding as Applicant. Sato, U.S. Patent 3,738,173, is  
referred to as Sato. Makita, U.S. Patent 5,340,215, is referred to as Makita. The  
second Applicant Affidavit provides further support that the Sato reference is not  
teaching or disclosing the claimed invention. A third Applicant Affidavit is directed to the  
10 need for a sanitary probe tip. Applicant will respond to the Office Action by paragraph  
number. The Applicant has further amended its claims filed in its May 9, 2007  
response. The Applicant amended claim 1 in response to the obviousness rejections.

The Applicant appreciated the Examiner's clarifying phone call concerning the  
Applicant's May 9, 2007, response. The Inventor Affidavit answered and mooted the 35  
U.S.C. section 102 rejection, in the August 23, 2007 Office Action, at paragraph 5. The  
15 102(b) rejection has been withdrawn by the Office, as presented in August 2007 Office  
Action.

The Applicant filed an RCE on June 7, 2007, in response to the Interview of June  
4, 2007. The Applicant's attorney respectfully suggests it has fulfilled his duty under  
20 MPEP 713.04, in this response. Amended claim 1 is the formal response to the  
Examiner's interview summary.

## Background

Applicant's invention claims at least one finger ejects the probe cover from the probe tip without exposing the ejecting finger to possible contamination from a patient's body part. In the prior art cited, the exterior surface of the probe tip and eject finger can become contaminated during use within a patient's ear, even with a protective cover. Possible contamination of the Applicant's ejection finger or probe shaft or tip is avoided when the Applicant's cover shields the probe tip and ejection fingers, when the probe tip or shaft is inserted into the ear to take a temperature measurement.

As claimed, the Applicant's ejection finger moves distally toward a distal end of the probe tip, along the outer surface of the probe tip and along the inner surface of the probe cover. The cover conceals the ejection finger and probe tip during use. The finger engages a proximal face at the inner surface of the probe cover as the finger moves distally along the probe tip to eject the probe cover.

Applicant reasserts its Inventor Affidavit (Harr) filed on May 9, 2007, to explain the invention and in further support of response to the Office Action rejections. The Applicant has submitted a second Affidavit directed to the Examiner's assertion that the claimed subject matter is a mere reversal of the Sato reference from Engineer Ricky Sisk. The Applicant submitted a third Affidavit in support of the benefits provided by a probe cover protecting the probe tip/shaft from patient discharged, RN Loredana Jinga.

**Response to the Office Action**Response Paragraph 5 at Page 4

5           The Applicant has provided a second Affidavit (Sisk) in response to the Office  
Action at page 5 regarding claim 1 (motivation to modify). The Sisk Affidavit responds  
to the Examiner's assertion that In re Gazda supports the Office's position that the  
instant application is a mere reversal of the parts that has previously been held obvious  
an expedient. Modifying Sato to operate as the claimed invention, the Sato reference  
10       would be inoperable. As the Sisk Affidavit explains a mere reversal of the collar results  
in an inoperable device as claimed in the instant application.

As explained in the Sisk Affidavit, the Sato device would not operate because the  
Lantz device elements operate independently of each other. The Lantz button does not  
move the shaft and, by contrast, the Sato button and shaft are one piece. The Sato  
15       button and shaft move together through the stationary collar 13. The Lantz spring  
moves the ejection fingers along the probe shaft to eject the cover and also to bias the  
probe tip into cover. Sato's spring keeps its tip biased against the cover, as does the  
Lantz, but this is the only similarity. This similarity has nothing to do with ejecting the  
cover from the probe shift. See Sisk Affidavit.

20       Assuming there is motivation in Sato to reverse its elements, the reversal creates  
an inoperable reference. See In re Gordon, 733 F.2d 900 (Fed. Cir. 1984) (finding no  
suggestion to modify a prior art device where the modifications would render the device  
inoperable for its intended purpose.) The Examiner has not provided the suggestion to

modify from the teachings of Sato. See *In re Fritch*, 972 F.2d 1260 (It is impermissible to use the claimed invention as an instruction manual or "template" to piece together the teachings of the prior art so that the claimed invention is rendered obvious.)

Furthermore, the Applicant respectfully suggests that Sato does not render the  
5 claimed invention obvious in view of Sato based on the teachings of Sato. Sato's  
alleged finger 13c is not capable of movement under a force applied by a user, as  
suggested at page 3, lines 6-8 and 14-15 of the Office Action. FIG. 3 of Sato shows the  
operation for ejecting the cover. The user depresses the button 15, in Sato, while  
10 holding the collar 13 with her fingers under the end cap 25. The force applied at button  
15 moves the probe shaft, with the integrated button, through the concentric opening at  
collar 13. The shaft/button assembly moves the probe cover off the retaining means 19  
at the collar 13. The alleged fingers 13c do not move, they are fixed to the collar which  
is stationery during the probe cover ejection operation. See Harr and Sisk Affidavits.

Furthermore, the Office Action, at page 4, provides italicized text which states, "*It  
15 is noted, that in ejecting the probe cover, one can push down on the end cap 25 so that  
the fingers 13c strike the shoulder 12d of the probe cover 12 and thereby push off the  
probe cover 12.*" The Applicant would like the Examiner to review the Inventor Affidavit  
(Harr), in response to your note repeated above and located at page 8 of the Office  
Action.

20 The inventor Affidavit (Harr) takes the position that by pushing on the Sato end  
cap 25, the single assembly is moved along the probe shaft without dislodging its probe  
cover 12 from the collar 13 retaining means 19. The single assembly is formed when  
the user installs the cover 12 over the shaft 20, the cover is retained on the collar 13 by

the retaining means 19 thereby forming the single assembly of the collar and cover in Sato. The Sato shaft 20 must move to eject the cover or to install the cover because the Sato cover is secured to the collar/retaining 13/19 means. The cover is retained on the probe shaft in the present invention. In the present invention, a finger [26, 28] ejects the cover [32] off the probe [22] shaft and, by contrast, in Sato its shaft 14 ejects a cover 12 off the Sato collar 13. The Sato shaft moves through an opening in its collar. This operation is completely different than the present invention, as discussed in both Affidavits.

Sato is not obvious as it does not teach or disclose the claimed invention because in the present invention, structural differences result in a different operation to eject or install the probe cover as compared to Sato and discussed above. There is no support in Sato that would lead a person using common sense to keep the probe shaft stationary and to use the shaft to retain the cover, as found in the present invention. See Inventor Affidavit (Harr).

#### Response to Paragraph 7

The Applicant is responding to the section 103 rejection below. First, neither Sato nor Makita provide a teaching or suggestion to cover the collar or probe shaft with the probe cover as claimed and stated in the Applicant's Affidavits. See *Graham v. John Deere Co.*, 383 U.S. 1 (1966) (ascertaining the differences between the prior art and the claims at issue). Both Sato and Makita teach away in their figures. Sato FIG. 4 shows its probe cover does not cover the collar and shaft. Makita FIGS. 1 and 3-5

show the probe tip 4 exposed when the cover 9 is inserted over the probe tip. In re Caldwell, 319 F. 2d 254 (1963) ("reference teaches away if it leaves the impression that the product would not have the property sought by the applicant"). The non-obvious feature is the probe cover protects the shaft or tip from patient excretions.

5           Next, neither reference teaches or discloses the eject finger moves along the outer surface of the tip and beneath the probe cover, thus protecting the eject fingers from any patient deposits on the probe cover that may migrate to the edge of the cover, at the proximal end of the cover. See Jinga Affidavit.

10           The Applicant respectfully suggests that Sato does not anticipate or render obvious claim 5 thru claim 9 of the present invention because the alleged Sato fingers 13c are not moveable. See Inventor Affidavit (Harr).

15           Lastly, the Applicant respectfully disagrees that Makita teaches its fingers 7 move along the inside of the probe cover, as claimed in the present invention, to eject the cover. The Makita eject fingers strike the proximal face at the outer edge of the probe cover, on the outside of the probe cover 9 not inside the cover 9, to eject the cover 9 from the retaining groove on the Makita shaft. This is shown at the Applicant's annotated FIG. 4 of Makita provided in its May 2007 response, which is included by reference in this response. By contrast, the Examiner is referred to FIG. 9 of the present invention, as explained in paragraphs [0056-57], and which shows the finger  
20 [26, 28] striking a surface at the inside of the probe cover to eject the cover. In the instant invention, the eject finger and shaft are kept sanitary with the probe cover covering the shaft and eject fingers when the device is used as intended, in the present invention. See Annotated Makita FIG. 4 with its cover installed the probe 4 and fingers



7 are exposed to germs and other sources of contamination during use. See Jinga Affidavit.

The Applicant respectfully suggests that the dependent claims 2-12 are allowable as being based on an allowable independent claim 1 and the additional arguments made above.

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